

## ABSTRACT OF THE DISCLOSURE

A figure reading apparatus capable of increasing the processing rate while maintaining the recognition precision, includes an image input apparatus for inputting a color image and a data processing apparatus for conducting processing on the input color image. The figure reading apparatus has a main color extraction function of extracting main colors contained in the color image and resolving the color image into main color images respectively of the main colors extracted from the input color image, a projection function of projecting points of extracted main colors on a three-dimensional space onto a plane by using a conversion expression, a candidate narrowing down function of removing combinations that need not be combined according to features of distance between main colors projected onto a two-dimensional space, and a combination generation function of combining images from candidates narrowed down and generating an image area candidate.